



Year 2001 Progress Report of Activities



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Alderson, WV Plant Materials Center

P. O. Box 390, Alderson, WV 24910 Web site: Plant-Materials.nrcs.usda.gov



Who We Are

The Alderson Plant Materials Center serves 11 states in the Appalachian Region from Pennsylvania to Georgia and Alabama. The Center is operated by the USDA-NRCS in cooperation with the USDA-Agriculture Research Service, U.S. Forest Service and the Agriculture Experiment Stations of West Virginia University, Virginia Polytechnic Institute and State University and the University of Kentucky. Alderson is located in the heart of Appalachia, and the Center is situated on County Route 3/29, also known as Old Prison Farm Road, approximately 20 miles Southeast of Lewisburg, West Virginia. This center is new with regard to land resource and physical plant, but is the product of the transfer of programs and equipment from Quicksand, Kentucky to Alderson, West Virginia. The transfer of center functions began in 1996 and was completed in 2000.

What We Do

The Plant Materials Center serves Appalachia by evaluating plants for their ability to solve specific conservation problems related to climate, the rugged topography, soil limitations, various land uses, fish and wildlife needs and desires of the landowners. The center provides a place for conducting systematic observations and evaluations of plants needed to protect our natural resources. New techniques are developed for the propagation, establishment, management and use for new or improved species of grasses, legumes, shrubs and trees.

The Center's program emphasizes improving forage production on hillside pastures, address problems associated with concentrated livestock, reclamation of mined lands, streambank stabilization, agro-forestry, wildlife habitat improvement, and utilization of economic and culturally valuable plants. The center assembles plants from the entire service area with similar soils and climate, evaluates the plants, develops management techniques, and provides seed and plants for planting to test performance throughout the area. Most of the plant materials produced at the center are used in West Virginia, Kentucky, Tennessee, Pennsylvania, Ohio, Virginia, and North Carolina.

A brief summary of year 2001 accomplishments follows. For a complete account of all activities, request the 2001 Technical Report at the above address.

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New Projects Launched in 2001

The Alderson Plant Materials Center initiated three new projects during 2001. Each project involves one or more species of native plants and all three projects have diversified our partnerships with federal agencies and private conservation groups. A brief description of each project follows.

US Army Corps. of Engineers – Marmet Native Plant Mitigation

The Alderson Plant Materials Center is assisting the US Army Corps. of Engineers - Huntington District with restoration of native plants at the Marmet Locks and Dam Project. This project is located on the Kanawha River in West Virginia upstream of Charleston. The project includes building a new lock chamber and approach channels at River Mile 67.7. All vegetation and habitats within the approximately 150 acre site will be destroyed during the course of construction. The PMC is harvesting plants from the site prior to start of construction. Harvested plants will be held at the PMC until construction is completed. These plants will then be reintroduced to assist with re-establishment of genetic diversity on the site.

Six native woody species are being harvested from the site. These species are: *Acer saccharinum*, silver maple; *Lindera benzoin*, spicebush; *Sambucus canadensis*, elderberry; *Asimina triloba*, pawpaw; *Sassafras albidum*, sassafras; and *Aesculus octandra*, yellow buckeye.

Saving West Virginia's Balsam Fir

Abies balsamea, balsam fir is native to high elevation areas in West Virginia. However, balsam fir numbers are declining due to a serious infestation of the balsam wooly adelgid. The adelgid is an exotic, sap-sucking insect that causes mortality within 2-3 years of initial contact. Several conservation groups have recognized the rapid decline of the fir in West Virginia and have formed a partnership with the US Department of the Interior and the Plant Materials Center to restore balsam fir to four natural areas in the West Virginia Highlands. Volunteers from the West Virginia Highlands Conservancy, The Mountain Institute, The Nature Conservancy, and others harvested

balsam fir seed in the Fall of 2000. The harvested seed was processed by the volunteers and shipped to Alderson PMC for seed banking. The PMC is also responsible for producing seedlings for reintroduction to the natural areas where the seed was harvested.

Giant Cane Rapid Propagation Study

Arundinaria gigantea, giant cane or bamboo is our largest native grass. Giant cane covered extensive areas of the southeastern United States at the time of European settlement. These areas were known as canebrakes and they disappeared rapidly following settlement due to a combination of factors. Today, giant cane persists largely as an understory plant in other vegetative cover types.

The shoots or canes arise from underground stems known as rhizomes. Only rarely does *Arundinaria* flower and set seed. Historical accounts of cane brakes clearly indicate that when *Arundinaria* flowers and produces seed, the plant then dies. Thus the principal method of reproduction is vegetative.

The NRCS has developed an interest in rapidly propagating giant cane for use as a streambank erosion control plant and other conservation uses. Collection of plants from Illinois, Indiana and Ohio were initiated in 2001. The Alderson PMC received plants from 9 different locations. These plants will be evaluated with regard to survival, rate of spread, and ability to produce new plants from division of rhizomes.

The Eastern Band of the Cherokee Nation also has an interest in Giant cane. However, their interest is in those cane plants that produce large diameter canes. Cherokee crafters use the large diameter canes to make traditional basketry. Suitable canes have become very difficult to harvest from wild cane populations, and the Cherokee are interested in propagating plants that are suitable for their basketry. The Alderson PMC will assist the Cherokee with development of propagation and management techniques to ensure their crafters have a dependable supply of large diameter cane plants.